

CLAIMS

1. An enclosed motor characterized by comprising:

a metallic motor casing having a peripheral wall portion formed in a cylindrical shape and an end wall portion for closing one end opening of said peripheral wall portion;

a rotor provided in said motor casing to drive an output shaft projecting from said motor casing through a shaft hole in said end wall portion;

a stator provided at the periphery of said rotor in said motor casing to rotationally drive said rotor;

a cover member provided to close the other end opening of said motor casing; and

a connector body integrally formed of a resin so as to close the other end opening of said motor casing from the outside of said cover member.

2. The enclosed motor according to claim 1, characterized in that said cover member is formed integrally with said stator using a resin for integrally forming said stator, and is formed so as to integrally hold a connector pin, a portion on the distal end side of which is arranged in said connector body when said connector body is molded,

the proximal end portion of said connector pin serving as a terminal for connecting the end portion of a coil in said stator.

3. The enclosed motor according to claim 2, characterized in that said terminal is located on the outside in the axial direction of a bobbin on which said coil in said stator is

wound, and is provided so as to extend on the outer periphery side of said bobbin along the end surface in the axial direction of said bobbin.

4. The enclosed motor according to claim 2, characterized in that a sub-cover member, which enables the exposure of said terminal, is provided in a portion corresponding to said terminal in said cover member.

5. The enclosed motor according to claim 1, characterized in that said connector body is configured so that a surface directed toward the end wall portion side in the axial direction of said motor casing serves as a flange surface for being installed to a member to which the motor is installed by being brought into contact with said member to which the motor is installed.

6. The enclosed motor according to claim 1, characterized in that said rotor has a support shaft portion formed of a material having a self-lubricating property and a rotor magnet fixed on the outer peripheral surface of said support shaft portion, and the outer peripheral surface of said support shaft portion is supported rotatably.

7. A motor having a rotor in which a rotor magnet is fixed on the outer peripheral surface of a support shaft portion, characterized in that

said support shaft portion is formed of a material having a self-lubricating property, and the outer peripheral surface of said support shaft portion is supported rotatably.

8. The motor according to claim 7, characterized in that the end surface in the axial direction of said support shaft portion is supported slidably.

9. The motor according to claim 7, characterized in that said material of said support shaft portion is a resin having a self-lubricating property.

10. The motor according to claim 7, characterized in that said rotor magnet is fixed on the outer peripheral surface of said support shaft portion by pressing-in, bonding, or post-molding of a resin magnet.

11. The motor according to claim 7, characterized in that said rotor magnet is fixed on the outer peripheral surface of said support shaft portion by molding said support shaft portion in a state in which said rotor magnet is arranged at the outer periphery.

12. The motor according to claim 7, characterized in that a tubular member is disposed on the rotary support portion for rotatably supporting the rotor, and an outer circumferential surface of the support shaft portion is rotatably supported through the tubular member.

13. The motor according to claim 7, characterized in that at a position corresponding to one end surface in the axial direction of said support shaft portion, a thrust bearing surface which is in slidably contact with said one end surface is provided, and at a position corresponding to the other end surface in the axial direction of said support shaft portion, urging means for urging from the other end surface side toward the thrust bearing surface side is provided.

14. The motor according to claim 13, characterized in that a disc-shaped member is disposed between an axial end surface of the support shaft portion and the thrust bearing surface.